

Name: _____ Period: _____ Date: _____

Patterns Poster Worksheet for Pattern _____

1. You are randomly assigned a pattern showing the first four steps. Study the pattern and make a sketch of Step 5. How many units (blocks, circles, toothpicks) are in Step 5? _____
2. Describe what Step 13 looks like using words **or** drawing a “quick” sketch. How many units (blocks, circles, toothpicks) are in Step 13? _____
3. Complete this T-chart for your pattern.

Step	Units
1	
2	
3	
4	
5	
13	
40	

4. Write an expression that calculates the number of units (blocks, circles, toothpicks) if “n” is the step number.

Poster Requirements

- Come up with a name for your pattern. This will be the title of your poster.
- Attach a copy of the original pattern (which shows the first four steps) to your poster.
- Draw step 5 on your poster – an exact drawing, not a “quick sketch”.
- Make a table showing the step number and the number of units for the first five steps.
- Make a “quick sketch” of step 40 and calculate the number of units in this step.
- Write a paragraph describing how you see the pattern visually.
- Write an expression that calculates the number of units if “n” is the step number. Write this expression somewhat large, because it is one of the most important things on the poster.
 - NOTE: Your expression must match your diagrams. You should be able to “see” each part of the expression in the diagram. For this reason, leave the expression unsimplified. If you want to simplify the expression as well, label it “simplified version,” then put that underneath or off to the side.
- To accompany your expression, make a “quick sketch” of step “n”, where the parts of the diagrams are labeled with variables.
- Now, you need to come up with an alternate method of visualizing the pattern. For this new method, describe it in words, make a quick sketch of step 40, and write an expression.
- Make sure everyone’s name is on the poster (front or back).

NOTE 1: Use color effectively. Labeling different parts of your diagrams with different colors is a great way to get people to visualize your pattern!!!

NOTE 2: For each element of the poster, you may draw/write it directly on the poster, or do it on separate paper and neatly cut it out/glue it on. Separate paper is a great way to efficiently allow multiple people to work on it at once.

Grading

This assignment will be an 0.25 grade. It will be worth 40 points, as outlined in the rubric below. Each category will be graded based on accuracy, neatness, and thoroughness.

(The “individual contribution” category will be graded based on a combination of my observation and your group’s evaluation of your contribution.)

	Title & Names	First 4 steps attached	Step 5 drawing	Table for 1 st 5 steps	“Quick sketch” of step 40	Paragraph describing pattern	Expression	“Quick sketch” of Step n	Alternate Method	Individual contribution
Value	2	1	2	2	3	6	3	3	8	10
Your Score										
								TOTAL		____/40